

Abstract

A pointing device having a fingerprint recognition function, a fingerprint image recognition and pointing method, and a method for providing a portable terminal service using the same are disclosed. In the pointing device having a fingerprint recognition function and a fingerprint recognition method, fingerprint images having small sizes are mapped to generate a large fingerprint image or a small fingerprint image extracted from the large fingerprint image so that the pointing device performs user recognition and pointer control. As a result, respective sensors for the user recognition and for the pointer control are not comprised in the pointing device, but only one kind of sensors for performing both functions of user recognition and pointer control is comprised in the pointing device according to an embodiment of the present invention. Also, it is possible to easily embody miniaturization of a portable terminal device because the user recognition which requires a large fingerprint can be performed only with a small fingerprint image, thereby reducing manufacturing cost. Additionally, important information in the portable terminal device having the pointing device can be protected by selectively limiting kinds of service usable in the portable terminal device depending on user recognition.

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
6 January 2005 (06.01.2005)

PCT

(10) International Publication Number
WO 2005/002077 A1

(51) International Patent Classification⁷: H04B 1/40

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(21) International Application Number:
PCT/KR2004/001602

(81) Designated States (*unless otherwise indicated, for every kind of national protection available*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(22) International Filing Date: 30 June 2004 (30.06.2004)

(25) Filing Language: Korean

(26) Publication Language: English

(30) Priority Data:
10-2003-0043841 30 June 2003 (30.06.2003) KR
10-2003-0056072 13 August 2003 (13.08.2003) KR
10-2003-0061676 4 September 2003 (04.09.2003) KR

(84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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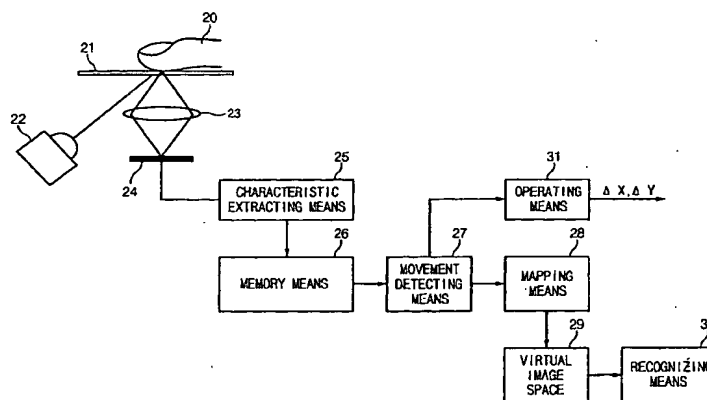
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Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: POINTING DEVICE HAVING FINGERPRINT IMAGE RECOGNITION FUNCTION, FINGERPRINT IMAGE RECOGNITION AND POINTING METHOD, AND METHOD FOR PROVIDING PORTABLE TERMINAL SERVICE USING THEREOF



(57) Abstract: A pointing device having a fingerprint recognition function, a fingerprint image recognition and pointing method, and a method for providing a portable terminal service using the same are disclosed. In the pointing device having a fingerprint recognition function and a fingerprint recognition method, fingerprint images having small sizes are mapped to generate a large fingerprint image or a small fingerprint image extracted from the large fingerprint image so that the pointing device performs user recognition and pointer control. As a result, respective sensors for the user recognition and for the pointer control are not comprised in the pointing device, but only one kind of sensors for performing both functions of user recognition and pointer control is comprised in the pointing device according to an embodiment of the present invention. Also, it is possible to easily embody miniaturization of a portable terminal device because the user recognition which requires a large fingerprint can be performed only with a small fingerprint image, thereby reducing manufacturing cost. Additionally, important information in the portable terminal device having the pointing device can be protected by selectively limiting kinds of service usable in the portable terminal device depending on user recognition.

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